

NEW DESCRIPTIONS

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A NEW SPECIES OF *PARALLELAPTERA* (HYMENOPTERA: MYMARIDAE) AN EGG PARASITOID OF TINGIDAE, FROM SOUTHERN INDIA¹

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(With two photos & seven text-figures)

INTRODUCTION

The genus *Parallelaptera* was erected by Enock (1909) with the type species *Parallelaptera panis*. The diagnostic features of the genus were described as follows: antennae eleven segmented in males and eight segmented in females; tarsomers four, together much longer than the tibia; thorax longer than the sessile abdomen; wings without any surface hairs but with long parallel marginal cilia; hindwings almost as long as the forewing and ovipositor projecting far beyond the apex of the abdomen. Subsequently, Girault (1911) tentatively described yet another related species (*Anthemella rex*) which was a year later confirmed by him (Girault 1912) as *Parallelaptera rex*. These are the only two recorded species of *Parallelaptera* so far known from literature.

The present description of a new species is based on specimens collected from the para-

sitized eggs of the *Ocimum* tingid, *Cochlochila bullita*. The only other species of mymarid parasitoid on tingid eggs was reported to be *Erythemelus empoascae*, reared from the eggs of the *Vitex* giant tingid *Ammianus ravanus* (Kirkaldy); the teak tingid, *Pontanus puerilis* Drake and Poor and the *Lantana* tingid, *Teleonemia scrupulosa* Stal (Livingstone *et al.* 1982 and Yacoub and Livingstone 1983). *E. empoascae* was described first by Subba Rao (1966) as egg parasite of jassids.

Parallelaptera polyphaga sp. nov.

(Photo. 1-2 & Figs. 1-7)

FEMALE: (Photo. 1) Minute; length entire 0.58 mm, width across the eggs 0.14 mm and across the thorax 0.14 mm; generally dark brown; body beneath and legs pale brown.

Head: triangular when viewed frontally; with long stiff bristles at the base of each antenna; a pair of long bristles at the posterior corner of each eye directing backwards and another pair outer to the ocelli; a pair of dorsal bristles

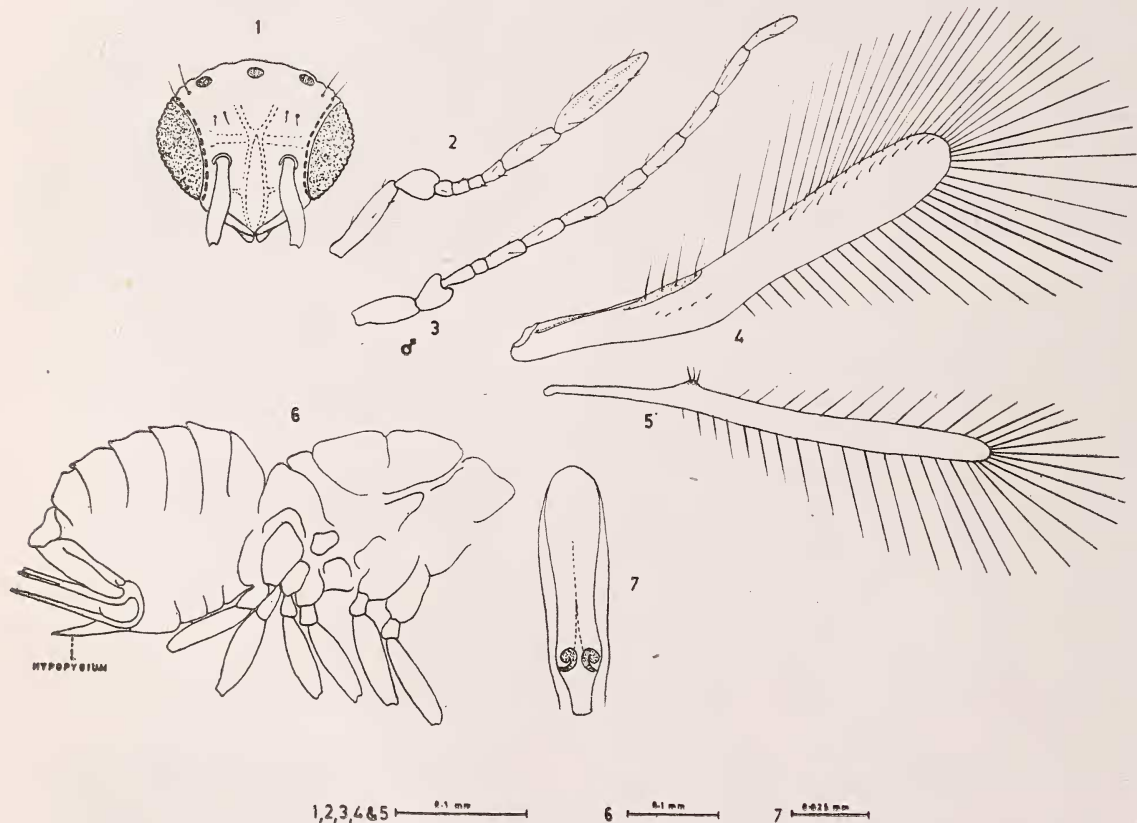
¹ Contribution No. 49. Accepted December 1985.

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midway between eyes and another median bristle on the clypeus directing anteriorly; eyes sanguineous, widely separated; ocelli three, pale brown; antennae long, slender, inserted frontally; antennomeres with sparsely distributed minute stiff hairs; scape long with small stumpy radical, 5.23 times longer than its width; pedicel short, expanded, less than half the length of the scape; funicle five segmented, fifth segment expanded and almost as long as the first four segments combined — their lengths as follows — 1:1:0.77:1.3:3.6; club with three elongately expanded sensoria, 4.4 times longer than its greatest width, 1.3 times longer than the scape and 1.9 times

longer than the fifth funicular segment; mandibles small, subtriangular tridentate.

Thorax: elongate, 1.5 times longer than its width, 1.75 times longer than the head and 1.2 times longer than the abdomen; pronotum subtriangular, broadly ovate anteriorly; 2 pairs of median long bristles present one behind the other; mesonotum broad and mesophragma very long, projecting upto the second abdominal segment; meso and metascutum and scutellum totally bare; forewings narrowly elongate, uniformly broad, apically rounded, almost equal to the body size, hyaline, basally infuscated upto the stigmal level; four long



Figs. 1-7. *Paralleoptera polyphaga* sp. nov.

1. Head, front view; 2. Antenna — female; 3. Antenna — male; 4. Forewing; 5. Hind wing; 6. Lateral view of thorax and abdomen — female; 7. Male genital segment.

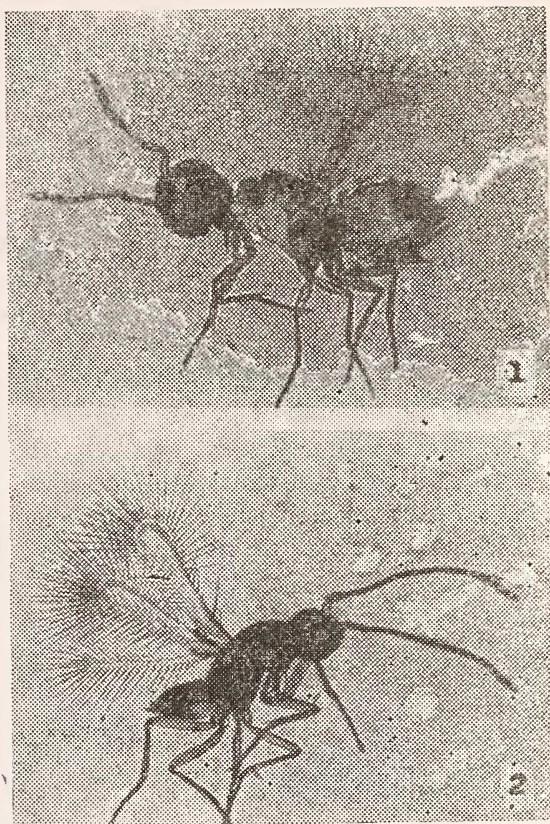
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stiff bristles present over the stigma, one bristle more than double the length of the rest; remigium with a row of costal and sub-costal ciliation; cubitus with short cilia; the rest of the remigium bare; marginal fringes very long, gradually increasing in length from base to apex, reaching a maximum of 0.18 mm; stigmal vein short, straight, stumpy; hindwing uniformly narrow, elongate, almost as long as the forewing; marginal fringes gradually increasing in length towards the apex but slightly shorter when compared with the fringe of the forewings; legs long, slender; fore and hind coxae equal in length and twice as long as the middle one; fore and hind femorae slightly longer than the middle femora; fore-tibia slightly swollen apically with long combed tibial spur, extending almost upto the middle of the first tarsomere; middle tibia more elongate, 1.2 times as long as the fore-tibia and 1.1 times as long as the hind tibia; tarsomeres equal in length, together as long as the tibia.

Abdomen: Sessile, truncate, longer than broad, 0.84 times as long as the thorax; a pair of bristles present dorsomedially on either side; 8th and 9th terga dorsally with tufts of slender hairs; ovipositor slightly extending beyond the apex of the abdomen and occupying 3/4th entire length of the abdomen; hypopygium, long, terminating subapically.

MALE: (Photo. 2) A little smaller than the female, antennae (dimorphic) with 10 funicular segments, second funicular segment not more than half the length of any of the rest of the segments; male genitalia 102 micra long and 0.6 times as long as the abdomen.

Parallelaptera polyphaga is so named because this is the only mymarid tingid egg parasitoid so far recorded that has the largest



Photos. 1-2. *Parallelaptera polyphaga* sp. nov.
1. Female; 2. Male.

number of host species. About 22 species belonging to 16 genera of tingids recorded on about 30 species belonging to 16 families of host plants, are known to be attacked by this species (Yacob and Livingstone 1983).

Parallelaptera polyphaga sp. nov. differs from *P. panis* and *P. rex* in its general coloration and in the morphology of the antennae and legs. It differs from *P. panis* in being light brown with sanguineous eyes and totally lack the golden yellow markings characteristically reported in *P. rex*.

The pedicel is short and more swollen than the scape in *P. polyphaga* whereas the scape in *P. panis* is reported to be slender. In type species, the second funicular segment is almost as long as the first and third segments combined. In the males however, the second funicular segment is almost half the length of the rest of the segments. The tarsomeres collectively do not exceed the length of the tibia. The tibial spur of the foretibia is comb like. Though the wings are generally regarded to be free from ciliation in the other two species described earlier, the costal and cubital cilia are significantly developed in this species. The ovipositor in the present species projects only a little beyond the abdomen and the hypopygium is prominently developed, reaching almost upto the tip of the abdomen.

Holotype: Female, reared from the egg of the tingid *Teleonemia scrupulosa* Stal, collected from Chamundi Hills, S. India on 8-1-1980.

Allotype: Male, also reared from the egg of the same species of tingid from the same locality.

Paratypes: the same data as the holotype.

Types mounted on slides and deposited for the present in the Division of Entomology, Bharathiar University, Coimbatore, S. India.

ACKNOWLEDGEMENTS

We are indebted to the Indian Council of Agricultural Research, New Delhi for financial support and the authorities of the University of Madras and Bharathiar University for facilities.

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DESCRIPTION OF TWO NEW SPECIES OF GENUS *ACRO CERATITIS* HENDEL (DIPTERA: TEPHRITIDAE) FROM CHANDIGARH, INDIA¹

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(With two text-figures)

INTRODUCTION

The genus *Acroceratitis* (= *Stictaspis* Bezzi 1913) was first erected by Hendel 1913 for the

¹ Accepted March 1986.

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type species *Acroceratitis plumosa*. This genus is characterised by the third antennal segment being pointed at the apex, long plumose arista and a swollen scutellum, the latter yellow with black markings or black with yellow markings. Presently the genus has 19 Oriental and 5